



Colorado Department
of Public Health
and Environment

Regulation 81: What does it mean for non-permitted large CAFOs?



Environmental Agriculture
Program

This fact sheet highlights certain compliance requirements of Regulation 81 for non-permitted large Concentrated Animal Feeding Operations (CAFOs). For more details you can access the full text of Regulation 81 online at www.colorado.gov/cdphe/cafos or contact the Environmental Agriculture Program at (303) 692-3523, 3520, 2499 or 3614 with questions.

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Regulation 81 of the Colorado Water Quality Control Commission includes surface water protection requirements for large concentrated animal feeding operations (Large CAFOs) that do not hold a discharge permit. This fact sheet summarizes and highlights these requirements. In addition, Regulation 81 requires all CAFOs, whether they hold a permit or not, to protect ground water. Highlights are outlined in the fact sheet, *Regulation No. 81: What are the Ground Water Protection Requirements for All CAFOs?* published by the Colorado Department of Public Health and Environment's Environmental Agriculture Program (Ag Program).

A Large CAFO confines 1,000 or more cattle or equivalent (e.g., 700 or more mature dairy cows or 10,000 sheep). Where a Large CAFO does not have a discharge permit, Regulation 81 specifies how the production area and croplands must be designed and operated to protect surface waters of the state. Surface waters of the state are, for all intents and purposes, all surface waters in Colorado. It is important to know that some surface waters of the state are also defined as waters of the United States (waters of the U.S. are defined in the Code of Federal Regulations [40 CFR 122.2] and, in general, are navigable waters and their associated tributaries and wetlands). **Discharges to waters of the U.S. are allowed only from permitted CAFOs.**

A CAFO's
production area includes
all areas of animal confinement,
feed and raw materials storage,
manure storage, and wastewater
containment.

Contact the Ag Program about being protected by a discharge permit if your Large CAFO is near surface water that may be connected to waters of the U.S.

Registration with the Ag Program

Non-permitted Large CAFOs must register with the Ag Program by submitting contact and location information about the facility. A registration form is available online at: www.colorado.gov/cdphe/cafos.

Facility Management Plan

The owner or operator of a non-permitted Large CAFO must compile a Facility Management Plan (FMP). The FMP must meet the applicable Regulation 81 requirements for surface water protection for production areas and land application sites, and ground water protection.

Surface water protection elements for the production area must be included in the FMP as soon as a facility is defined as a CAFO.

The FMP must include production area design, construction, and performance requirements for surface water protection like:

- ▶ Impoundments designed, constructed and maintained to contain:
 - runoff from the designed storm event;
 - wastewater produced at the facility; and
 - two feet of free board
- ▶ Conveyance structures designed, constructed and maintained to carry runoff from the designed storm event.
- ▶ Diversions structures constructed and maintained as appropriate to divert clean water from the production area.
- ▶ Impoundment depth markers clearly marked in one foot increments and the minimum capacity necessary to contain the designed storm event plus freeboard (the pump-down level).
- ▶ Procedures to ensure proper operation and maintenance of impoundments.

Designed Storm Event:
25-year, 24-hour storm
or
Chronic Storm
(10-day, 10-year
series of storms)
Whichever is greater

Surface water protection elements for land application sites must be included in the FMP as soon as a facility is defined as a CAFO.

The FMP must include practices and procedures for land application sites for surface water protection such as:

- ▶ Site-specific conservation practices that control pollutant runoff to surface waters, including practices to ensure timely incorporation of applied manure, prevention of wastewater discharge from furrow- or flood-irrigated sites, no discharge from land application on frozen or saturated ground and maintenance of setbacks from domestic water supply wells.
- ▶ Manure, wastewater and soil sampling and analysis for nutrient content (collected at least annually).
- ▶ Protocols to ensure appropriate nutrient utilization, including: (1) limiting applications to the crop's annual nitrogen need, (2) uniform application with properly calibrated equipment, and (3) use of appropriate fertilizer recommendations.
- ▶ Standards for determining land application rates that minimize nitrogen and phosphorus transport from land application sites, including use of the Colorado Phosphorus Index or similar risk screening tool to assess the potential for phosphorus transport to surface water and identify sites where phosphorus-based land application rates are required or no manure application is appropriate.
- ▶ Maintain 100-foot setbacks or 35-foot vegetated buffers between land application sites and down-gradient surface waters or conduits to surface water.
- ▶ Documentation of all land application practices and procedures, maintained on site for five years and provided to the Ag Program upon request.
- ▶ Do not dispose of mortalities, chemicals or other contaminants in systems that are not designed to treat them.

Ground water protection elements must be included in the FMP and updated as necessary.

See Regulation 81 or the Ag Program's Fact Sheet, *Regulation 81: What are the Ground Water Protection Requirements for All CAFOs?* for information on Regulation 81's ground water requirements for CAFOs.

Recordkeeping

To demonstrate compliance with Regulation 81's surface water protection requirements, non-permitted Large CAFOs must keep the records described in the following table for five years and make the records available to the Ag Program upon request.

Record	Frequency
Current FMP – Compile and maintain in one discrete place	Update as Necessary
Land application records - Document implementation and management of:	
<ul style="list-style-type: none"> • Conservation practices: <ul style="list-style-type: none"> – Implementation of structural practice (e.g., vegetated buffer strip) – Implementation of non-structural practice (e.g., conservation tillage) – Documentation of maintenance of all practices 	<ul style="list-style-type: none"> • Once when implemented • As needed • As necessary and appropriate
• Results of manure and wastewater analysis	At least annually
• Results of soil analysis	At least annually
• Land application rate calculations, including the outcome of the nitrogen and phosphorus transport risk assessment, crop(s) to be grown, expected yields and fertilizer recommendations	As necessary; at least annually
• The amount of manure or wastewater applied	Each land application event
Manure and wastewater depth in impoundments with depth markers	Weekly

Discharges from Non-Permitted Large CAFOs

Under no circumstances is a discharge to waters of the U.S. allowed from a non-permitted Large CAFO.

A discharge to **surface waters of the state** is not allowed unless it is caused by precipitation and is from a CAFO that is designed, constructed, operated and maintained to contain all manure and wastewater including the precipitation and runoff from the designed storm event. Discharges from land application sites are also prohibited, unless the discharge is caused by precipitation and is from a site where manure and wastewater have been land applied in accordance with the FMP surface water protection elements for land application sites (see above).

Any discharge of manure or wastewater to surface water must be reported to the Ag Program by telephone, e-mail or fax within 24 hours. *Regulation 81* lists the items to report to the Ag Program.